

Abstract of the Disclosure

In the method for expanding an address for an Internet protocol in an Internet edge router and the record medium capable of being read through a computer having a record of a program to realize the inventive method, an address expanding system of IPv4 used by incorporating public network connection information in an IPv4 address is utilized, thereby, all services of the existing IPv4 can be accepted and an enlargement to a new service can be valid. That is, in such Internet edge router, the inventive method comprises the steps of defining public network connection information in an option class of an Internet protocol message; b) constructing a security & authentication (SA) module and an SA hierarchical protocol in a service terminal protocol in order to provide IP address information and a user authentication from a server having information of the existing public network subscribers by using the public network connection information, and constructing a connection information processing part to process the public network connection information; and c) receiving a message from a network interface and processing it, in the connection information processing part, whereby being applied to an Internet service system.